REMARKS

Claims 1 to 18 were cancelled. Claim 19 is pending and currently amended. Applicants apologize for the oversight regarding the claim numbering and agree with the Examiner that previously presented claim 21 should be renumbered to claim 19. No new matter has been added.

Rejection of claim 19 under 35 U.S.C. §112

The Examiner has rejected claim 19 under 35 U.S.C. §112, second paragraph, as being indefinite. Specifically, the Examiner states that the phrase "NFkB pathway" is indefinite and that Applicants have not defined the pathway in terms of all of its members in the specification and, therefore, it is totally unclear to which proteins and/or enzymes Applicants are referring. Applicants have amended claim 19 to read "NFkB activity" instead of "NFkB pathway." Support for this amendment can be found throughout the specification, for example in Figure 5. By this Amendment, claim 19 no longer encompasses the entire NFkB pathway and is, therefore, not indefinite. As such, Applicants respectfully request reconsideration and withdrawal of this rejection.

Rejection of claim 19 under 35 U.S.C. §102(b)

The Examiner has rejected claim 19 under 35 U.S.C. §102(b) as being anticipated by PCT Application WO 00/00185 to Dalla-Favera et al. (hereinafter "Dalla-Favera"). Specifically, the Examiner alleges that Dalla-Favera teaches methods of phosphorylating BCL-6 protein (polypeptide) having 100% identity to SEQ ID NO:18 of this invention wherein said phosphorylation results in decreasing activity of said BCL-6 protein. The Examiner alleges further that Della-Favera's BCL-6 protein is inherently a member of the NFkB pathway, thereby activating claim 19. As more fully set out below, Dalla-Favera does not anticipate instant claim 19 under 35 U.S.C. §102(b).

It is well settled that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP §2131 (quoting *Verdegaal Bros. v. Union Oil Co. of Calif.*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). "The identical invention must be shown in as complete detail as is contained in the . . . claim." *Id.* (quoting *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Therefore, Dalla-

Favera must describe each and every element of claim 19, in order to anticipate these claims under Section 102(b).

Applicants respectfully submit that Dalla-Favera does not teach each and every element of the claims. More specifically, Dalla-Favera teaches methods of phosphorylating BCL-6 protein having 100% identity to SEQ ID NO:18 of this invention wherein said phosphorylation results in decreasing the activity of said BCL-6 protein. In contrast, amended claim 19 teaches a method of decreasing NFkB activity by inhibiting the expression of BCL-6 polypeptide. Support for the amendment to claim 19 can be found in Figure 5C. Dalla-Favera does not teach decreasing NFkB activity by inhibiting the expression of BCL-6 polypeptide. In fact, one of ordinary skill in the art would not expect a decrease in NFkB activity based upon the Dalla-Favera disclosure as there is no mention of NFkB in anywhere in this reference. Further, there is no evidence in Dalla-Favera that phosphorylation of BCL-6 would even have the same effect as inhibition of BCL-6 polypeptide expression, specifically decreasing NFkB activity. Thus, Dalla-Favera does not teach every element of amended claim 19.

The Examiner has also alleged that the BCL-6 protein of Dalla-Favera is inherently a member of the NFkB pathway, thereby activating claim 19. Applicants respectfully disagree for the following reasons. The MPEP §2112 states in relevant part:

> "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." *Ex parte Levy,* 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original) (Applicant's invention was directed to a biaxially oriented, flexible dilation catheter balloon (a tube which expands upon inflation) used, for example, in clearing the blood vessels of heart patients). The examiner applied a U.S. patent to Schjeldahl which disclosed injection molding a tubular preform and then injecting air into the preform to expand it against a mold (blow molding). The reference did not directly state that the end product balloon was biaxially oriented. It did disclose that the balloon was "formed from a thin flexible inelastic, high tensile strength, biaxially oriented synthetic plastic material." *Id.* at 1462 (emphasis in original). The examiner argued that Schjeldahl's balloon was inherently biaxially oriented. The Board reversed on the basis that the examiner did not provide objective evidence or cogent technical reasoning to support the conclusion of inherency.).

In the instant case, the Examiner has provided no evidentiary basis for a presumption of inherency of claim 19 based upon Dalla-Favera as required by the MPEP. Dalla-Favera only teaches inhibition of BCL-6 activity by phosphorylation but does not teach that said phosphorylation

decreases NFkB activity. Because Dalla-Favera has not connected BCL-6 phosphorylation to NFkB activity in any way, it cannot be presumed that said BCL-6 phosphorylation would in fact affect NFkB activity.

For the foregoing reasons, Dalla-Favera does not teach every element of amended claim 19 and, therefore, does not anticipate this claim under 35 U.S.C. §102(b). Applicants respectfully request reconsideration and withdrawal of this rejection.

Rejection of claim 19 under 35 U.S.C. §103

The Examiner has rejected claim 19 as being allegedly obvious over U.S. Patent No. 6,140,125 to Taylor (hereinafter "Taylor") in view of current protein (polypeptide) modulation techniques. Specifically, the Examiner alleges that Taylor teaches a polypeptide having 100% identity to the BCL-6 polypeptide of this invention and methods for inhibiting expression of BLC-6 protein. The Examiner also alleges that BCL-6 polypeptide is inherently a member of the NFkB pathway. Applicants respectfully disagree and direct the Examiner's attention to the arguments made above regarding the inherency issue. The Examiner acknowledges that Taylor fails to teach methods of inhibiting the polypeptide expressed by the BCL-6 gene.

Amended claim 19 of the present application recites a method of decreasing NFkB activity by inhibiting the expression of the BCL-6 polypeptide. Taylor does not teach decreasing NFkB activity by inhibiting BCL-6 polypeptide expression nor does it teach any methods of inhibiting BCL-6 polypeptide expression. Current protein modulation techniques also do not teach decreasing NFkB activity by inhibiting the expression of BCL-6 polypeptide and, therefore, can neither correct the defect of Taylor nor render the method of amended claim 19 obvious.

The three-prong test, which must be met for a reference to establish a *prima facie* case of obviousness, has not been satisfied in the instant matter. The MPEP states, in relevant part:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). MPEP § 2142

None of these criteria have been met here.

The first prong of the *In re Vaeck* test, the requirement that the references themselves or the knowledge in the art must provide some suggestion or motivation to arrive at the present invention, has not been met in this instance. There is no incentive or motivation to modify the teachings of Taylor to arrive at the present invention. Taylor does not teach decreasing NFkB activity by inhibiting the expression of BCL-6 polypeptide. In fact, Taylor does not even mention NFkB or its relationship to BCL-6. Taylor merely discloses multiple antisense compounds for modulation of BCL-6 expression. As such, Taylor does not suggest or motivate one of ordinary skill in the art to decrease NFkB activity by inhibiting the expression of BCL-6 polypeptide. Current protein modulation techniques cannot correct the defects of Taylor as they also do not teach the relationship between BCL-6 and NFkB. Thus, one of ordinary skill in the art would not be motivated to utilize the Taylor compounds in a cell expressing NFkB or in a patient with an NFkB-related disorder based upon the Taylor disclosure. Therefore, Taylor, when examined in view of current protein modulation techniques, does not provide the requisite suggestion or motivation to reach the present invention.

The second prong of the *In re Vaeck* test, the requirement that there be a reasonable expectation of success, is similarly not met in this instance. There is nothing in the disclosure of Taylor that would suggest any expectation of success in utilizing an inhibitor of BCL-6 polypeptide expression to decrease NFkB activity. Taylor merely contains an extensive list of antisense compounds that are useful in inhibiting the expression of BCL-6 polypeptide. Taylor does not disclose examining NFkB activity in response to the inhibition of the expression of BCL-6 polypeptide. As such, it does not provide the guidance that a skilled artisan would need to expect success in practicing the present invention.

Taylor also offers no reasonable expectation of success when examined in view of current protein modulation techniques as these techniques only teach how to modulate protein expression but they do not teach how the inhibition of protein expression is useful in modulation other protein activity. In other words, current protein modulation techniques do not disclose the use of inhibitors of the expression of BCL-6 polypeptide to decrease NFkB activity. As such, one of ordinary skill in the art would not predict success in using an inhibitor of BCL-6 to decrease NFkB activity based upon these techniques. Therefore, Taylor, when combined with current protein modulation

techniques, does not provide the skilled artisan with a reasonable expectation of success in practicing the present invention.

In addition to the requirements set forth above, in order to establish a *prima facie* case of obviousness, the prior art reference(s) must teach or suggest all of the claim limitations. Similar to the other prongs of the *In re Vaeck* test, Taylor and current protein modulation techniques fail to teach or suggest all of the claim limitations as neither reference teaches decreasing NFkB activity by inhibiting BCL-6 expression. As such, the three prong test to establish a *prima facie* case of obviousness has not been met so reconsideration and withdrawal of the Section 103(a) rejection is respectfully requested.

If any fee is due in connection herewith not already accounted for, please charge such fee to Deposit Account No. 19-3880 of the undersigned. Furthermore, if any extension of time not already accounted for is required, such extension is hereby petitioned for, and it is requested that any fee due for said extension be charged to the above-stated Deposit Account.

Respectfully submitted,

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